Communications Strategy
Earth Prediction Innovation Center (EPIC) V2.1

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1. Introduction

1.1. The UFS and EPIC Background

The Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), Office of Oceanic and Atmospheric Research (OAR), and Weather Program Office (WPO) operate under a congressional mandate, as outlined in the Weather Research and Forecasting Innovation Act (WRFIA) of 2017 (P.L. 115-25) and further augmented by the National Integrated Drought Information System Reauthorization Act (NIDISRA) of 2018 (P.L. 115-423), to spearhead the Earth Prediction Innovation Center (EPIC). EPIC is envisioned to rejuvenate weather modeling proficiency, reclaim and sustain global leadership in Numerical Weather Prediction (NWP), and enhance the integration of research into operational processes (as delineated in NIDISRA) through several strategies including fostering collaboration in critical areas like model development and system integration, and leveraging existing resources across NOAA's spectrum.

A fundamental element of EPIC's mission is to nurture and promote the Unified Forecast System (UFS), a community-anchored, coupled, and inclusive Earth modeling system. The UFS serves as a beacon for collaborative endeavors, inviting a broad swath of the community to engage actively in its development. This symbiotic relationship augments EPIC's efforts in facilitating a collaborative environment and community support, which are quintessential for the success and outreach of the UFS. Therefore, EPIC is committed to crafting an outreach and engagement strategic plan aimed at fostering vibrant interactions with the external community, including members of the Weather Enterprise, and offering them regular updates and opportunities to contribute to the UFS's evolution.

Both the UFS and EPIC operate with clearly defined mission statements that align seamlessly with the broader goals of WPO and the strategic directions of NOAA and OAR:

- WPO Mission: Cultivating, funding, and transitioning collaborative weather research that results in accurate and actionable weather information for all.

- EPIC Mission: To be the catalyst for community research and modeling advances that continually inform and accelerate advances in our Nation's operational forecast modeling systems.

- UFS Mission: To unify and amplify community efforts in creating a dynamic, collaborative, and comprehensive Earth modeling system, empowering diverse sectors to actively participate, innovate, and contribute towards the advancement of accurate and reliable weather and air quality forecasting, underpinned by the robust support and technological advancements facilitated by EPIC.

The UFS and EPIC Communications Strategy is intended to be used by NOAA and contract personnel engaged in executing the EPIC Program. These parties include WPO, OAR, the National Weather Service (NWS), and other interested NOAA staff and leadership as well as NOAA's contracting partner, Raytheon Intelligence & Space and their subcontractors.

1.2. UFS Talking Points

Outlined below are crucial segments of the UFS website that provide a comprehensive overview of what the UFS embodies and what it does not.

1.2.1. What the UFS Is

The UFS is a community-based Earth modeling system that spans various domains and predictive timelines, aiding advancements in the nation's forecast model systems. It facilitates collaboration between diverse sectors including NOAA, educational bodies, and federal agencies, serving as the nucleus for NOAA's operational numerical weather predictions and fostering swift transitions from research to operational outcomes.

1.2.2. What the UFS Is Not

The UFS is not a static system, it is continuously evolving with inputs from a vibrant community. It integrates various forecasting components such as atmosphere and ocean elements to offer a holistic solution. Collaborating with multiple stakeholders, it encourages innovation and community participation, fostering a shared ecosystem to achieve common weather and climate forecasting goals.

1.3. EPIC Talking Points

The EPIC Community Portal (ECP) contains a great wealth of information on EPIC talking points, many of which are included on the “About EPIC” section of the ECP.

EPIC delivers:

- Community support and engagement
- A roadmap for research and model priorities
- A model development environment
- Code management
- Cloud-ready code
- Observational data and tools
- Promising projects along the research to operations to research (R2O2R) spectrum

1.3.1. What EPIC Is

EPIC IS a virtual center that leverages resources to better coordinate the weather research and modeling community to continually inform and accelerate advances in our nation's operational forecast model systems. In the near term, this means that EPIC's initial focus is on global components of the UFS.

1.3.2. What EPIC Is Not

EPIC IS NOT:

- Free user access to high-performance computing and parallel processing
- Containerization beyond the community integrated development environment
- The UFS.

1.4. UFS and EPIC Community Outreach Consolidation Talking Points

The joint UFS and EPIC community outreach initiative aims to synergize efforts and resources to advance the nation's operational forecast model systems. Below, we break down the central facets of this collaborative outreach strategy, outlining what it embodies and what it doesn't.

1.4.1. What the UFS and EPIC Community Outreach Consolidation Is

The consolidated outreach is a unified platform where the UFS and EPIC converge to foster collaboration and innovation within the weather research and modeling community. It acts as a hub that streamlines communication and engagement between researchers, developers, and users, amplifying the reach and impact of advancements in weather and climate forecast systems. This consolidation seeks to cultivate a vibrant community where knowledge and resources are pooled to achieve shared goals, thus accelerating the transition of research findings to operational applications.

1.4.2. What the UFS and EPIC Community Outreach Consolidation Is Not

The consolidated outreach is not a fragmented effort, but a harmonized strategy that leverages the strengths of both the UFS and EPIC to facilitate cohesive progress in the field of weather forecasting. It does not operate as separate entities working in silos but integrates the expertise and resources of both platforms to enhance the quality and reliability of weather and climate predictions. Moreover, it does not limit the participation of community members but encourages active involvement to foster a rich ecosystem of shared knowledge and innovation.

1.5. Integrated Communications Strategic Principles

1.5.1. Purpose

The purpose of this integrated communications strategy is to create a comprehensive blueprint for the collaborative communications efforts of both the UFS and EPIC. It aims to unify and streamline the user support services and communication pathways across the two platforms, enhancing the coordination and implementation of outreach and engagement initiatives. This strategy is to be utilized by personnel involved in orchestrating and implementing actions under both the UFS and EPIC.

1.5.2. Mission

"Engage with members of the Weather Enterprise to accelerate contributions to the Unified Forecast System."

The mission of the integrated communications strategy is to craft narratives that synergize the efforts of the UFS and EPIC communities. It strives to foster a broad and inclusive platform that inspires confidence and sparks innovation, facilitating a more robust and collaborative approach to developing operational weather models.

1.5.3. Goals

This communications strategy is driven by three goals:

Goal One: Actively engage everyone across sectors.
Goal Two: Foster trust, inspire innovation, and encourage community contribution.
Goal Three: Communicate success clearly and consistently

1.5.4. Scope

During the initial phase (2023-2024), the strategy intends to elevate brand recognition for both the UFS and EPIC, nurturing the community modeling paradigm. It focuses on stimulating user engagement and fostering community contributions while bolstering the UFS community outreach efforts through coordinated platforms such as the Communications and Outreach Working Group. As the UFS and EPIC broaden their horizons, the communications activities will simultaneously expand, providing resilient support for the evolving needs and endeavors.

1.5.5. Content Areas

The Integrated Communications Strategy encompasses three primary content areas:

- External Communications: In the initial phase (2023-2024), this strategy is designed to heighten brand recognition for both the UFS and EPIC, fostering the growth of the community modeling paradigm. It is keen on amplifying user engagement and

encouraging community contributions, enhancing the UFS community outreach through collaboration with the Communications and Outreach Working Group and the ECE team in EPIC. As the UFS and EPIC continue to expand their scope, the communications activities will evolve concurrently, offering steadfast support for emerging initiatives and projects.

- Internal Communications: This involves coordinated communication within and between agencies and extends to liaisons with budgetary and policy offices within NOAA. Regular engagement with pertinent governmental offices and divisions will be maintained, with a focus on facilitating transparent and constructive dialogues on program progress and goals. The internal communication strategy will also encompass regular updates and align the visions of the UFS and EPIC.
- User Support: This segment focuses on the establishment of responsive and efficient protocols to address community inquiries and feedback through platforms such as GitHub Discussions. By fostering an environment where users receive timely and effective support, the strategy aims to break down barriers and facilitate smooth progression in the developmental phases. The cohesive efforts of user support teams from both the UFS and EPIC will be central to achieving this goal.

1.5.6. Branding

The branding strategy for the UFS and EPIC is constructed around maintaining their distinct identities while forging a unified front in community outreach efforts. This consolidated approach is geared towards increasing efficiency, minimizing redundancy, and preventing confusion within the community they both serve. While each maintains its own identity, the branding will highlight the symbiotic relationship between them, emphasizing the groundbreaking work being orchestrated by the UFS, powered robustly by EPIC. This endeavor seeks to accentuate a community-centric model that is character-focused, results-oriented, and forward-thinking, fostering broad engagement and leveraging collective efforts to enhance community awareness and drive positive change.

1.5.7. Language

To facilitate a seamless consolidation in community outreach efforts, external communications will adopt plain language that resonates well with non-technical audiences, thereby achieving broader engagement. Internal communications, on the other hand, will retain precision and adaptability to effectively reach stakeholders and leadership from both the UFS and EPIC. Additionally, user support language will be crafted within the cooperative framework, fostering community interaction and speeding the integration of innovations into operational applications, underscoring the collaborative effort of the UFS and EPIC in propelling advancements.

1.5.8. Accessibility

All public-facing documents should comply with NOAA Library Section 508 guidance.

1.5.9. Audience(s)

Guidelines for audiences as they relate to both the UFS and EPIC include:

- External communications audiences encompass members of the public, private, and academic/research sectors. The focal points of these communications will be:
    - Academics and researchers (e.g., professors and postdoctoral, graduate, and undergraduate students, particularly in the Earth sciences)

    - Emergency managers, weather forecasters, broadcasters, and weather enthusiasts
    - Members of the general public who are impacted by forecasting
    - Coding communities and engineers
    - Next-generation scientists
    - The private sector
    - Members of Congress and their staffers
    - Model users and developers
    - Stakeholders directly involved with innovation, testing, and transition of the community models developed for operational forecasting applications at NOAA.

  This sphere will now also actively engage communities closely aligned with UFS initiatives and developments, even if they are not listed in the groups above.
- Internal parties include WPO, OAR, NWS, NESDIS, NOS, and NOAA staff and leadership, along with members of Congress and their staff. This category will also involve internal teams and stakeholders intrinsic to the UFS framework, fostering a cohesive approach to addressing both UFS and EPIC objectives.
- The user support audience comprises stakeholders directly engaged with innovations, research, development, testing, and the transition from research to operations of community models fashioned for operational forecasting applications at NOAA. Initially, user support will have a pronounced emphasis on the UFS. While crafting messages suited to specific audiences, both the UFS and EPIC will adopt a unified messaging strategy, ensuring coherence and uniformity across various content domains.

1.5.10. EPIC Styles

Content created under the purview of EPIC will adhere to the designated EPIC Styles outlined below, to maintain a cohesive and recognizable brand identity. Unless otherwise specified by UFS directives for collaborative efforts or specific UFS-centered content, the following styles will be utilized:

- Reflex Blue: #0A4595
- Process Blue: #0099D8
- Ecosystem Green: #00A54F
- Community Orange: #D97200
- Text Font: Proxima-Nova

In instances where UFS specifies different style guidelines, efforts will be made to harmoniously integrate both branding elements, ensuring that while the brands remain separate, the collaborative essence is reflected in the unified visual presentation.

2. Content and Communication Areas - Objectives

The concerted efforts of the UFS and EPIC in the communications domain encompass three pivotal content areas: external communications, internal communications, and user support. These unified efforts aim to optimize resource utilization, prevent duplication of efforts, and mitigate potential confusion, thereby fostering a harmonized and productive community. The objectives for each area are delineated below:

2.1. External Communications

- Promote the community modeling brand with concerted efforts highlighting the synergy between the UFS and EPIC.
- Foster increased community engagement, trust, collaboration, accessibility, and inclusion, thus amplifying public awareness of weather products and services.
- Unified dissemination of engagement opportunities to the modeling community, leveraging the strengths of both the UFS and EPIC.
- Streamline the transition of innovations into operational applications, maximizing the contributions from both entities.
- Merge community and NOAA research development cultures, and integrate communications resources to form a cohesive entity, showcasing the collaborative efforts of the UFS and EPIC.

2.2. Internal Communications

- Uphold and communicate the unified vision of OneNOAA.
- Facilitate collaboration between the UFS and EPIC to align visions and strategies, fostering seamless Research to Operations (R2O) transitions.
- Harness feedback from key stakeholders to prioritize future goals, reflecting the joint aspirations of the UFS and EPIC.
- Ensure alignment of NOAA's scientific priorities and budget, with a focus on maximizing the outcomes of UFS and EPIC collaborations.
- Make the best use of existing NOAA communications resources, preventing redundancy and promoting synergy between the UFS and EPIC.

2.3. User Support (EPIC Contract)

- Establish and nurture trust for EPIC within the UFS user community, emphasizing the collaborative efforts.
- Address bugs within the code base promptly, leveraging the joint expertise of UFS and EPIC teams.
- Advocate for the UFS in academia, supported by EPIC's creation of educational materials and resources.
- Actively engage with the UFS user community, providing resources and assistance that showcase the combined strengths of the UFS and EPIC.
- Identify and mitigate barriers to entry, with joint efforts from both the UFS and EPIC to foster a supportive environment.

3. Communications and Outreach Products

3.1. Web-Based Media

Product Name	Frequency	Curator	Content Area
UFS Website	Continuous	UFS Community	External

EPIC Website	Continuous	EPIC Program Team/Raytheon Team	External, Internal
Tutorials	Four per year	Raytheon Team	External, Internal, User Support
YouTube Videos	Four per year	Raytheon Team	External, Internal
Social Media	Twice weekly	Raytheon Team	External
Workshops	Twice per year	Raytheon Team	External, Internal, User Support

3.2. Publications

Product Name	Frequency	Curator	Content Area
Newsletter	Quarterly	Raytheon Team	External, Internal
News Updates	As appropriate, with a goal of monthly	Raytheon Team	External, Internal
Workshop Reports	As needed	EPIC Program Team/Raytheon Team	External, Internal
EPIC Program Presentation	Once during UIFCW	EPIC Program Team/Raytheon Team	External, Internal
Executive Summaries	As needed	EPIC Program Team	Internal
EPIC Strategic Plan	Single document	EPIC Program Team/Raytheon Team	Internal
Quarterly Board Reports	Quarterly	EPIC Program Team/Raytheon Team	Internal

3.3. Events

Product Name	Frequency	Curator	Content Area
Workshops	At least annually at AMS	EPIC Program Team/Raytheon Team	External, Internal
Town Halls	At least annually at AMS; as relevant at AGU	EPIC Program Team/Raytheon Team	External, Internal
Seminars	As requested or when relevant	EPIC Program Team/Raytheon Team	External, Internal
Open Forums	As needed	EPIC Program Team/Raytheon Team	External, Internal
Executive Summaries	As needed	EPIC Program Team	External, Internal
Trainings	Quarterly	EPIC Program Team/Raytheon Team	External, Internal
CodeFests	Quarterly	EPIC Program Team/Raytheon Team	External, Internal
Summer Workshop	Annually	EPIC Program Team/Raytheon Team	External, Internal
Technical Presentations	At least annually at AMS and/or AGU	EPIC Program Team/Raytheon Team	External, Internal

3.4. Other Initiatives

Product Name	Frequency	Curator	Content Area
Prizes at Events	As needed	EPIC Program	External
Community Modeling Board	Upcoming	EPIC Program	External
Tech Notes	Upcoming	EPIC Program	External, Internal
EPIC Ambassador Program	Upcoming	EPIC Program	External

4. EPIC Community Engagement (ECE) Team

The consolidation of EPIC and UFS communications aims to unify outreach efforts, effectively using NOAA communications resources. The combined communications team seeks to amplify a cohesive message, streamline language, and cultivate focus groups addressing narrative development, social media engagement, cross-agency alignment, and external community interaction. This approach intends to reduce resource duplication and community confusion, promoting a collaborative atmosphere that highlights UFS advancements supported by EPIC.

4.1. EPIC Community Engagement Team Members (as of September 2023):

- Aaron Jones, EPIC Community Engagement Product Owner, NOAA/Raytheon
- Jamiel Farhat, Scrum Master, NOAA/Raytheon
- Amber Jenkins, Strategist and Content Creator, NOAA/Raytheon
- Charlene Barone, Digital & Interactive Developer, NOAA/Raytheon
- Laura Generosa, Digital & Social Media Specialist, NOAA/Raytheon
- Maryia Davis, NOAA/Raytheon
- Jef Dodson, Web Developer, NOAA/Raytheon
- Jessica Wheeler, Events and Tradeshow Specialist, Raytheon/ISYS

4.2. UFS Communications & Outreach Working Group Members (as of September 2023):

- Douglas Hilderbrand, Preparedness and Resilience Program Lead, NOAA/NWS
- Alex Alder, UFS Developer and Content Creator
- Neil Jacobs, UFS Chief Science Advisor
- Tracy Fanara, Research Scientist and Program Manager, NOAA/University of Florida Center for Coastal Solutions

5. Product Rollout Template

As products become available on both the EPIC and UFS Community Portals, or when significant events arise, the rollout template will be utilized to support seamless planning and updates to products and dates in an Agile manner.

6. Graphics

Graphics are created as needed by the dedicated graphics team and are stored on the respective Community Portals of EPIC and UFS under the "media" section. Access to this section requires special permissions.

7. Background Materials and Guiding Documents

The combined team overseeing EPIC and UFS communications will maintain a repository of background materials and guiding documents. Regular updates will be made to the "About EPIC" and "About UFS" sections on the respective websites to incorporate new content that is pertinent and appropriate.

8. Glossary and FAQ

The joint team will develop and sustain a comprehensive glossary that encompasses terms pertinent to both EPIC and UFS, fostering a unified language and understanding. This glossary, housed under the "About EPIC" and "About UFS" sections, will feature definitions for commonly used language and acronyms across both platforms.

The FAQs, available on both community portals, will offer well-vetted answers to frequently asked questions, presenting a reliable resource for information on both EPIC and the UFS. These will be updated regularly to ensure accuracy and relevance.

9. Performance Measures

9.1. Social Media

- Measure One: Post five times per month on Twitter to increase likes in Insights.
- Measure Two: Post five times per month on Facebook to engage community members in the posts' comment sections.
- Measure Three: Post four times per month on Instagram to increase EPIC awareness.

9.2. Website Materials

- Measure Four: Publish one Quarterly Board Report per quarter to the EPIC website.
- Measure Five: Post one video and one tutorial per quarter to the EPIC website.
- Measure Six: Publish one FAQ update to the EPIC website.

9.3. External Measures

- Measure Seven: Host two community workshops per year.
- Measure Eight: Host one training and one CodeFest per quarter.
- Measure Nine: Hold semi-annual reviews twice a year.
- Measure Ten: Hold quarterly meetings for stakeholder feedback.
- Measure Eleven: Collect feedback from every event via user surveys.

10. Conclusion

10.1. Document Updates

The EPIC and UFS Communications Strategy will undergo updates on an annual basis to incorporate changes and developments in both programs.

10.2. Metrics Updates

Performance metrics will be tracked throughout the year. Quarterly success reports will be made available to both the EPIC and UFS teams during the "Inspect and Adapt" sessions, as documented in the Stakeholder Engagement Standard Operating Procedure & Metrics internal document and in the Quarterly Meeting Report. These annual updates, which echo the evolutions in both the EPIC and UFS programs, will further refine the Communications Strategy based on periodic performance metrics reports and feedback from the community and partners.

11. Appendix A: List of Relevant Acronyms

AGO	Acquisition and Grants Office
AGU	American Geophysical Union
AMS	American Meteorological Society
AUS	Advanced User Support
CIME	Common Infrastructure for Modeling the Earth
CPF	Community Physics Framework
CCPP	Common Community Physics Package
CROW	Community Research and Operational Workflow
CMEPS	Community Mediator for Earth Prediction Systems
DOC	Department of Commerce
DTC	Developmental Testbed Center
ECE	EPIC Community Engagement
ECP	EPIC Community Portal
EMC	Environmental Modeling Center
EPIC	Earth Prediction Innovation Center
ESPC	Earth System Prediction Capability
FAQ	Frequently Asked Question
JCSDA	Joint Center for Satellite Data Assimilation
MET	Model Evaluation Tools
MoA	Memorandum of Agreement
NEMS	NOAA Environmental Modeling Systems
NCAR	National Centers for Atmospheric Research
NGGPS	Next Generation Global Prediction System
NIDISRA	National Integrated Drought Information System Reauthorization Act of 2018
NOAA	National Oceanic and Atmospheric Administration
NOFO	Notice of Funding Opportunity
NWP	Numerical Weather Prediction
NWS	National Weather Service
OAR	Oceanic and Atmospheric Research
OWAQ	Office of Weather and Air Quality (former name of the Weather Program Office)
O2R	Operations to Research
P.L.	Public Law
R2O	Research to Operations
R2O2R	Research to Operations to Research
SIP	Strategic Implementation Plan
UFS	Unified Forecast System
UIFCW	Unifying Innovations in Forecasting Capabilities Workshop
WPO	Weather Program Office
WRFIA	Weather Research and Forecasting Innovation Act of 2017